

MATH: GRADE 1



Data Analysis, Statistics, and Probability:

Students will be able to...

- Formulate questions, use interviews, surveys, and observations to gather data about themselves and their surroundings
- Pose questions about themselves and their surroundings
- Make a plan for gathering and recording data
- Collect and keep track of data
- Explain and interpret results of surveys
- Students organize, classify, represent, and interpret data using tallies, charts, tables, bar graphs, pictographs, and interpret representations
- Sort and categorize data
- Invent and construct representations
- Compare two data sets
- Make sense of others representations
- Describe data quantitatively and qualitatively
- Students formulate inferences (draw conclusions) and make educated guesses (conjectures) about a situation based on information gained from data

Geometry

Students will be able to...

- Describe, compare, classify, and represent 2-D and 3-D shapes
- Use mathematical vocabulary to name shapes and describe characteristics of shapes
- Are familiar with a variety of squares, rectangles and triangles
- Group shapes according to common characteristics
- Compare and describe objects by size, shape, and orientation
- Recognize shapes that have been rotated and reflected and describe those translations
- Use rotation and reflection to arrange shapes
- Predict the results of putting shapes together and taking them apart
- Notice relationships among shapes
- Visualize and represent shapes
- Fill a given region with shapes
- Construct 3-D shapes from 2-D shapes
- Put 3-D shapes together to make other shapes
- Create and use 2-D representations of 3-D shapes and objects
- Describe and compare paths between two locations
- Visualize, describe, and compare the path between two locations in space and on a grid
- Visualize and describe directions of turns
- Visualize and describe directions for how to move in space and on a path

Measurement:

Students will be able to...

- Identify parts of the day, days of the week, months of the year; identify dates using a calendar
- Work with calendar to become familiar with sequence of days, weeks, and months and the relationships among these periods of time
- Work with daily schedules to become familiar with order of familiar events over time
- Discuss posted daily schedule including both analog and digital representations and words such as, *before, after, during, at the end of*
- Compare the length, weight, area, and volume of two or more objects using direct comparison
- Understand what weight is
- Use language to describe and compare weight
- Compare the weight of different objects using a balance
- Understand what capacity is
- Use language to describe and compare capacities of two and more than two containers
- Compare and measure capacities
- Fill a given area with shapes
- Understand what length is; use language to describe and compare length
- Measure and compare length using direct comparison
- Measure with multiple copies of units of the same size
- Measure and compare common objects
- Measure and compare length using nonstandard units
- Order lengths
- Select and correctly use the appropriate measurement tools
- Make and use estimates of measurement including time, volume, weight, and area
- Estimate the number of units needed to fill a container
- Relate size and shape to capacity
- Describe measurements that can't be measured in whole, exact units

Number Sense and Operations:

Students will be able to...

- Read, write, and sequence numbers up to 100
- Associate number words with corresponding written numerals
- Compare whole numbers
- Find the greater of two quantities
- Understand more, less, and equal amounts
- Identify coin names, values, and equivalencies
- Become familiar with coin names, values, and equivalencies
- Visualize quantities grouped in 2's, 5's and 10's
- Demonstrate an understanding of various meanings of addition and subtraction
- Record problem-solving strategies using pictures, numbers, words, and equations
- Find more than one solution to a problem that has multiple solutions
- Visualize combining and separating situations
- Visualize story problems that involve combining with change unknown

- Create story problems to match addition and subtraction expressions
- Understand and use the inverse relationship between addition and subtraction
- Know addition combinations to 10 and use them to solve problems
- Know combinations of 10

Discussion, Presentation and Composition

Students will be able to...

- Use agreed upon rules to participate in large and small group discussions.
- Express ideas in an organized way.
- Explain their mathematical thinking in writing.
- Maintain a system for collecting, referring to, and sharing their work.

